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AM

ИВАНОВ [IVANKOFF] (V. L.) & ВОУК (A. M.). A new disease of the Onion (*Allium cepa*).—*C. R. Acad. Sci. U.R.S.S.*, xvi, 1, pp. 69-72, 2 figs., 1937.

An account is given of a disease of the onion which was first observed in 1936 attacking large numbers of the plants grown at the Agricultural Experimental Station of Alexeyevka, near Kharkoff. Besides a severe stunting of the bulbs (from an average of 5.08 cm. to one of 2.35 cm. in the Zittau onion), the disease is characterized by a mosaic-like mottling on the leaves, ranging from minute, more or less elongated specks to more or less wide light green or cream-coloured bands, and various malformations of the floral organs, resulting in the production of a very considerably reduced yield in seed (from an average of 5.54 gm. to 0.96 gm. in the authors' tests) the viability of which is also very much diminished (from 76.3 to 46.8 per cent.). Seedlings grown from seeds collected from diseased plants were much weaker than seedlings from healthy onion seeds, and developed a less powerful root system. The diseased bulbs did not reach maturity, and instead of being normally spheroidal they retained an elongated shape; the greater part of those that were stored germinated during the autumn, and failed to survive until the next planting season. Histologically the disease re-

ASIS-514 DETAILING LITERATURE CLASSIFICATION

sulted in the loss of differentiation of the mesophyll, the palisade cells being indistinguishable from the cells of the deeper layers, hypoplasia of the stomata, and not infrequent formation of four instead of two guard cells, due to additional divisions. In heavily affected cells intracellular inclusions were found, consisting of homogeneous bodies, of which one or two, seldom more, were observed lying close to the nucleus. The disease was easily transmitted by rubbing the leaves of healthy plants with emery paper wetted with the juice of diseased plants, the incubation period lasting from 10 to 14 days. The disease is stated to differ from yellow dwarf [*R.A.M.*, xvi, p. 724] in that it does not attack the flowers, and is attributed to an undescribed virus.

SOUKHOV (SOUKHOV) (K. S.) & VOYK (A. M.). Mosaic disease of Oats.—
C.R. Acad. Sci. U.R.S.S., N.S., xiv, 3, pp. 207-210, 2 figs., 1938.

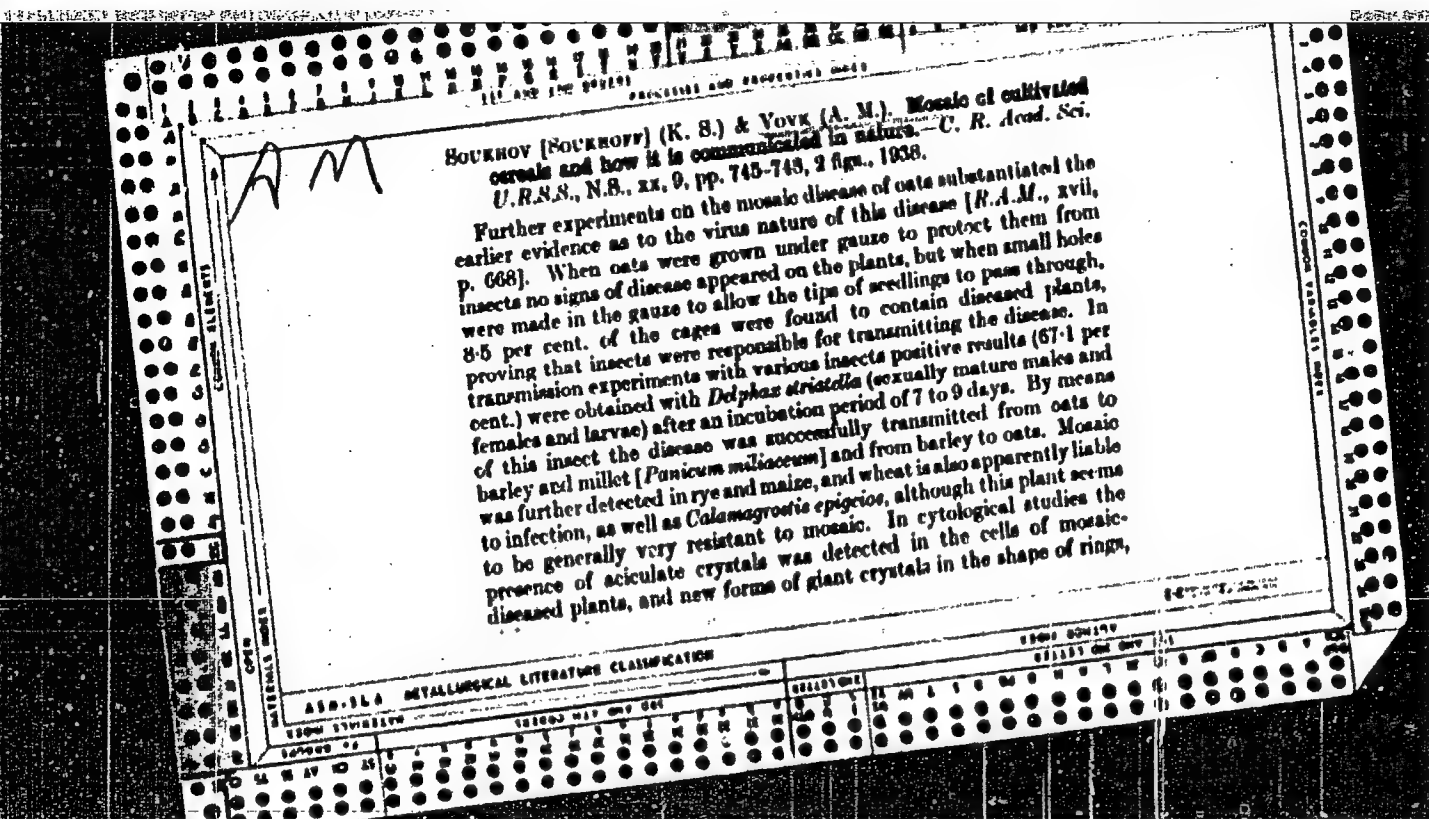
The authors give an account of their investigations of the condition of
oats described from Siberia under the name 'zakooklivanie' ('pupation':
R.A.M., xiv, p. 493), the results of which showed that the first symp-

tom of the disease to become apparent is the development of light green
stripes and spots on the leaves and leaf sheaths; in 1937 this symptom
appeared on the 18th day from sowing in oats sown both on the 5th
and on the 29th July, indicating that probably the incubation period
remains constant under different meteorological conditions. The other
macroscopical symptoms [loc. cit.] develop much later, and are almost
invariably accompanied by the mosaic pattern on the leaves and leaf
sheaths; the latter symptom, however, has a tendency to become
masked under the influence of dryness or high temperature of the air.
Field observations indicated that diseased plants are very irregularly
dispersed among the healthy, without the formation of any definite
infection foci, and that the incidence and severity of the disease decrease
considerably in the later sown oats. Cytological studies showed the
presence of vacuolate bodies similar to those found in mosaic wheat

(ibid., xvi, p. 665) and of spindle-shaped crystals, probably of protein nature, in the epidermal cells. Further studies revealed considerable disturbances in the vascular system of diseased oat plants, and considerable necrosis of the phloem of stunted plants, sometimes spreading to the neighbouring portions of the parenchyma. In slightly affected plants the phloem is not necrosed but is weakly developed. The total nitrogen content of stunted oat plants was found to be 2.7 to 3.03 per cent., as against 1.5 to 1.7 per cent. in healthy plants.

These investigations are held to have confirmed the view of previous workers that 'zakooklivanie' is due to a virus, and the fact that out of 3,773 oat plants grown under gauze cages only six developed the disease, presumably owing to the accidental intrusion of a carrier in two of the cages, would indicate that infection is not carried in the soil but is distributed by some as yet undetected insect.

All the varieties of *Avena sativa*, *A. strigosa*, and *A. byzantina* tested by the authors were found to be susceptible to the disease, which was also reported by another worker on *A. fatua* and *A. sterilis*.



rights, and twisted braids, were observed in the epidermal cells and guard cells of the stomata, whereas they were never found in the cells of healthy plants. In their dimensions and shape these giant crystals resemble the protein crystals of the Cactaceae and their protein nature is indicated by microchemical tests. They sometimes break up into small, aciculate crystals. Similar giant crystals have also been found in mosaic-infected millet, barley, and maize, and they are believed to be the virus itself.

СОВКОВУ (K. S.) & ВОУК (A. M.): 'Закукливание' Овса, его вредоносность и пути распространения в природе. [The injuriousness of 'zakooklivanie' of Oats and the mode of its dissemination in nature.]-*Bull. Acad. Sci. U.R.S.S., 1939, Sér. biol., 1, pp. 121-144, 6 figs., 1 diag., 1939.*

This is an expanded account of work at Omsk on the mosaic disease of oats, called 'zakooklivanie' [pupation] disease, most of which has already been noticed in this Review [*R.A.M.*, xviii, p. 297]. Attempts to transmit the disease by sap inoculation and grafting gave negative results, and no evidence was obtained of its transmission through the soil or by seeds. The disease seemed to be least serious in oats sown in dense rows and at the end of May precisely.

R. J. A. M.

Bukhov (K. S.) & Vovk (A. M.). *Zakuklivanie kulturalnykh ozonov i puti ego rasprostraneniya v prirode. [Zakuklivanie (pseudo-rosette) of cereal crops and its dissemination in nature.]*—47 pp., 22 figs., Leningrad, Publishing Department U.S.S.R. Academy of Sciences, 1940. 1 rouble, 75 kopeks. [Received 1947.]

This is a full account of the authors' studies on the 'zakuklivanie' (pupation) disease of oats (*R.A.M.*, xx, p. 155), most of which has already been reported in this Review. Experiments showed that among oat species *Avena sativa* is the most susceptible to the disease (58 per cent. infection) and *A. strigosa* the least (9.2 per cent.). A list of 34 susceptible oat varieties and species is appended.

VOVK, A. M

"New Data on 'Zakuklivanie' of Different Cereals and Their Hybrids," in Virus Diseases of Plants and Measures for Their Control, Works of the Conference on Virus Diseases of Plants 1940, Publishing House of the Academy of Science USSR, Moscow, 1941, pp. 82-106. 464.32 So8

Sira:S1-90-53, 15 Dec. 1953

24/88

RISCHKOV (RIVKOFF) (V. L.) and VOYK (A. M.). Biological activity of acyl derivatives of the virus of Tobacco mosaic. *C.R. Acad. Sci. U.R.S.S., N.S.*, xxxviii, 7, pp. 221-222, 1943.

In experiments conducted at the Institute of Microbiology, Moscow [R.A.M., xxiii, p. 81], inoculations of tobacco and tomato plants with benzoylized and acetylated derivatives of tobacco mosaic virus were as successful as those with the normal virus itself, and the symptoms produced were identical in both cases. Inoculations of a new lot of tobacco and tomato plants with the juice from plants infected with the acyl derivatives were again as successful as those with the juice infected with the normal virus itself, indicating that acyl derivatives are as fully infective as the normal virus and capable of producing the same symptoms. It is assumed that within the plant into which these derivatives are introduced, the production of normal virus molecules takes place, and it is suggested in explanation of this phenomenon that the acylated molecule of the virus undergoes saponification in the living vegetable cell and hence is regenerated into its normal state.

R. A. M.

BOURNOV (K. S.), VOYK (A. M.) & ALKHEVA (Mme T. S.). Purified protein preparation from the virus of Oat mosaic (zakukhvanie).—*C.R. Acad. Sci. U.R.S.S., N.S.*, xli, 8, pp. 344-346, 1 fig., 1943.

The extraction of the oat mosaic ('zakukhvanie') (pseudo-rosette) virus (see preceding abstract) and its precipitation with hydrochloric acid, using a method

devised by the first-named author for the purification of winter wheat mosaic [*R.A.M.*, xlii, p. 59] (*Microbiology*, Moscow, ix, 2, 1940), produced a milky-white substance composed exclusively of birefringent needle-like crystals. A suspension of the preparation was submitted to the biuretic test for protein with positive results in the shape of a clear violet ring in the test tube. The crystals can be obtained either from fresh or dry mosaic leaves. Irreversible coagulation of the protein took place in leaf fragments exposed to a temperature of 60° C. for 20 minutes or to 80° for ten.

R7 AM

ИВАНОВ (V. L.), ВОСК (A. M.), & АЛЕКСЕЕВА (M. T. S.). On the physiological peculiarities of the yellow strain of Tobacco mosaic virus. *C. R. Acad. Sci. U.R.S.S.*, N. 8, xlii, 2, pp. 84-86, 1 fig., 1944.

The detection of some sharply defined light yellow spots in tomato plants infected with tobacco mosaic led to the isolation of a virus considered to be a yellow strain of the tobacco mosaic virus [*R.A.M.*, xliii, p. 460], very similar to the white strains. In tomato plants, inoculation with juice from such spots resulted in an abnormally severe form of mosaic, characterized by yellow or nearly white spots on the youngest leaflets with subsequent lack of chlorophyll in the leaves, depression in growth of the whole plant, and dying-off of parts of leaves or entire leaves. In tobacco plants, inoculation resulted in a yellow mosaic of a somewhat unusual pattern followed by necrosis and dying-off of the leaves. The cells of plants infected with the yellow strain contain typical hexagonal Iwanovsky crystals. Tobacco plants infected with the green strain of the virus defied infection with the yellow strain and vice versa; while in the case of tomato plants neither strain was entirely suppressed by the other. The yellow strain was inactivated by a temperature of 86° C. and the green strain by one of about 90°. The yellow strain was inactivated by a hydrogen peroxide concentration of 0.15 per cent. while the green strain was not completely inhibited by any within the range of between 0.01 and 0.15 per cent. When halves of the same tobacco or tomato leaf were inoculated with juice containing either the yellow or the green strain, it appeared that the green strain always accumulated at a higher rate than the yellow one, and particularly so in tomato.

R J AM

VOYE (A. M.). Тар — переносчики мозаичной болезни лука. [Aphids—vectors of the mosaic disease of onion.]—Микробиология [Microbiology], xiii, 4, pp. 180-184, 1944.

Ryjkoff and the author in 1936-7 demonstrated the transmission of onion mosaic [R.A.M., xvii, p. 91] by the sap and now report investigations on insect vectors carried out in the greenhouse under controlled conditions. Insects reared on suitable hosts were transferred to infected onion plants for two to five days and then batches of 10 to 20 insects were put on young, healthy onion leaves. Infection

occurred after about 11 days with the aphids *Myzodes* [*Myzus*] *persicae*, *Neomyzus* [*M.*] *circumflexus*, and *Aulacorthum* [*Macrosiphum*] *pelargonii*. The mosaic is a very destructive disease, causing great reduction in the yield of bulbs and seeds. It overwinters in the bulb. The author reiterates his opinion that this disease differs from the onion yellow dwarf prevalent in the United States both in the nature of the virus and the symptoms, and that the disease described by Bremer in 1937 resembles the Russian mosaic. Repeated attempts to inoculate lily, hyacinth, and *Narcissus* with onion mosaic failed, and the mosaics on these Liliaceae are considered distinct from onion mosaic. It is recommended that onion seed should be obtained from healthy plants and not planted near seedlings of the former year or in ground on which infected plants have grown. To control the aphid vector is of the highest importance.

By analogy with methods used in the case of potato only stocks registered as resistant should be used to provide seed. Great interest attaches to the perennial onions Crezon, Slezin, and Bootoon, which are reported to show only 1 per cent. infection as against 34 per cent. in the ordinary 'turnip' onion.

6, 4/11
Soukhov (K.), Vovk (A. M.), & Alexeeva (Mme J.). Вспышки болезней растений в Киргизии. [Virus diseases of plants in Kirghia.] - *Микробиология* [Microbiology], xiii, 5, pp. 256-260, 1944.

During their stay in Frunze the authors noted the presence of the following viruses: tobacco mosaic on tobacco, tomato, chilli pepper (*Capsicum annuum*) (50 per cent.), and eggplant (0.5 per cent.); tomato aucuba mosaic (a strain of tobacco mosaic); a ring spot of tobacco; tomato 'stolbur' (tomato big bud) not very frequent on tomato, tobacco, pepper, and eggplant; necrosis mosaic of potato resembling acropetal necrosis (due to potato virus Y); potato aucuba mosaic (uncommon); and cucumber mosaic poorly developed on cucumber and melon. Mosaic of winter wheat occurred to a noteworthy extent, causing rosette symptoms with yellow-green stripes and spots on the leaves. Search for the 'zakuklivanie' mosaic (pseudo-rosette) of grasses (*R.A.M.*, xxiv, p. 13) was unsuccessful and several virus diseases common in European Russia were absent. A number of other virus diseases, not identified, are briefly recorded.

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VOYA, A. P.

"Mosaic on Leguminosae," Comptes Rendus (Doklady) de l'Academie des Sciences de l'URSS,
vol. 48, no. 3, 1945, pp. 213-215. 511 P444

Sira-Si-90-53, 15 Dec. 1953

VOVK, A.M.

"On the Identity Between Yellows of Kok-saghyz and Yellows of Aster and Its Possible
Relation to Big Bud in Tomato," Comptes Rendus (Doklady) de l'Academie Des Sciences
de l'URSS, vol. 48, no. 5, 1945, pp. 365.368. 511 P444

SO: SIRA - SI - 90-53, 15 Dec. 1953

VOVK, A. M.

"Transmission of the Mosaic Virus of Tobacco Through Larvae of *Plutia gamma* L.,"
Comptes Rendus (Doklady) de l'Academie des Sciences de l'URSS, vol. 49, no. 2,
1945, pp. 146-147. 511 P44

SO: SIRA - SI - 90-53, 15 Dec. 1953

RyAM

Сухнов (K. S.) & Юнк (A. M.). Столбур пасленовых и меры борьбы с ним.
[Woodiness of Solanaceae and the means of combating it.]—All-Union Scientific Research Institute of the Canning Industry, 32 pp., 10 figs., Moscow, 1946.

In 1945 the virus disease causing woodiness in tomatoes [R.A.M., xiii, p. 133; xiv, p. 130] reduced greatly the yields of tomatoes, potatoes, chilli pepper, and eggplant in the U.S.S.R. The disease was reported from the Moscow area, South Ukraine, Moldavia, Caucasus, the Krasnodar district, Crimea, the Rostov area, also from Central Asia—South Kazakhstan, Kirghiz, and Uzbekistan. In the Krasnodar district 30 per cent. of the chilli and eggplants withered and died as a result of infection and also 70 per cent. of the early potatoes and 52 per cent. of the summer varieties. In the Crimea eggplants and chillis suffered 50 to 70 per cent. loss, early potatoes 40 to 70 per cent., and tomatoes 40 to 60 per cent. The withering was attributed to woodiness virus [tomato big bud virus; *ibid.*, xxvi, p. 135].

In the course of experiments in 1945 the authors found that the potato yellow disease, the symptoms of which were identical with those of the potato disease due to aster yellow virus in the United States [*ibid.*, xxvi, p. 411] was also due to the woodiness virus. In the Moscow area, where yellows was widespread, cuttings from a diseased potato plant were grafted on to ten healthy tomato plants. After 18 to 20 days leaf chlorosis and all other symptoms of woodiness developed.

over

VOVK, A. M.

PA 36T39

USSR/Medicine - Viruses
Medicine - Plants

Jul 1946

"Stolbur Virus in Solanaceae," K. S. Sukhov, A. M.
Vovk, 2 pp

"Priroda" No 7

Stolbur disease of solanaceae takes a high yearly toll of the tomato crops of the southern part of Russia. It is transmitted primarily by the cicada. This disease affects the leaves, the blossoms, and stamens of the tomato, thus curtailing its productivity. Authors state various characteristics of the disease and state that these facts will play a most important role in the development of methods to fight this disease.

36T39

VOVK, A. M.

"Stolbur of Potatoes," Doklady Vsesoyuznoi Akademii Sel'skokhoziastvennykh Nauk imeni V. I. Lenina, vol. 11, no. 1-2, 1946, pp. 24-29. 20 Akl.

SO: SIRA - SI - 90-53, 15 Dec. 1953

VOVK, A. M.

"Mosaic Disease of Wheat-igropyron Hybrids," Trudy Zonal'nogo Instituta
Zernovogo Khoziaistva Nechernozemnoi Polosy SSSR, no. 13, 1946, pp. 115-123.
106 Z72

So: Sira - Si - 90 - 53, 15 Dec. 1953

VOVK, A. M.

"Tobacco Mosaic and Streak in Pepper Plants, " Mikrobiologiya, vol. 15, no. 2, 1946, pp. 163-167. 448.3 M582

Sira-Si-90-53, 15 Dec. 1953

VOVK, A. M.

"*Hyalosthes obsoletus* Sign., Transmitting Agent of Big Bud (Stolbur) Virus in Solanaceae," Comptes Rendus (Doklady) de l'Academie des Sciences de l'URSS, vol. 53, July 20, 1946, pp. 149-152. 511 P444

S9: SIRA - SI - 90-53, 15 Dec. 1953

VOVK, A. M.

"Means of Distribution of Stolbur Virus in Nature," in Reports of the Scientific--
Research Work for 1945, Department of Biological Science, Publishing House of the
Academy of Science USSR, Moscow, 1947, pp. 152-153. 511 Ak144

SO: SIRA - SI - 90-53, 15 Dec. 1953

VOVK, A. M.

"The Nature of Mass Wilting in the South of Potatoes, Peppers and Eggplants," in
Reports of the Scientific-Research Work for 1945, Department of Biological Science,
Publishing House of the Academy of Science USSR, Moscow, 1947, pp. 153-154.
511 Ak144

SO: SIFA - SI - 90-53, 15 Dec. 1953

VOVK, A. M.

"Relation of the Reproduction of Tobacco Mosaic Virus to the Stages of Development of the Host Plant," Agrobiologiya, no. 4, 1947, pp. 87-100. 20 Ag822

SO: SIRA - SI - 90-53, 15 Dec. 1953

VOVK, A. M.

"New Data on Stolbur of Potatoes," Sovetskaya Agromeliya, vol. 5, no. 4, 1947
pp. 72-75. 20 So84

SO: SIPA - SI - 90-53, 15 Dec. 1953

VOVK, A. M.

Mbr., Laboratory of Virus Diseases of Plants, Institute Microbiology, Acad. Sci., -1944-.

"Mosaic Disease in Leguminous Plants," Dok. AN, 48, No. 3, 1947

Oct. 1947

VOVK A. M.

USSR/Medicine - Viruses

Medicine - Plants - Diseases

"Stolbur Virus, Cause for Mass Wasting of Peppers, Eggplants, and Potatoes in the South,"
K. S. Sukhov, A. M. Vovk, Inst Genetics, Acad Sci USSR, 2 $\frac{1}{2}$ pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVIII, No 2

Discusses some of the characteristics, properties, and carriers of this rather widespread cause of withering of subject plants, as well as some measures for combating this virus disease. Submitted by Academician N. A. Maksimov, 12 Jun. 1947.

PA 49T50

VOVK, A. M.

"Withering of Potatoes in the South (Stolbur)," Sad i Ogorod, no. 2, 1948,
pp. 63-66. 80 Sa 13

SO: SIRA - SI - 90-53, 15 Dec. 1953

VOVK, A. M.

"New Method for the Control of Big Bud in Solanaceae," Sad i Ogorod, no. 3, 1948,
pp. 57-58. 80 Sa 13

SO:: SIRA - SI - 90-53, 15 Dec. 1953

VOVK, A. M.

"Effect of Length of Day on the Reproduction of Tobacco Mosaic Virus in the Tissues of a Tobacco Hybrid," Doklady Akademii Nauk SSSR, vol. 59, Feb. 27, 1948, pp. 1205-1207. 511 P444A

SO: SIRA - SI - 90-53, 15 Dec. 1953

VOVK, A. M.

USSR/Medicine - Plants, Diseases
Medicine - Tomatoes

Jul 48

"Mechanism of Relative Sensitivity of Stem-Type
Tomato Plants to Plant Virus Disease," K. S.
Sukhov, A. M. Vork, Inst of Genetics, Acad Sci
USSR, 4 pp

"Dok Ak Nauk SSSR" Vol XXI, No 2

Reports experiments. Tabulates results. Probable
that phloem sap of stem tomato plants is more
closely akin to parenchyma sap, regarding pH
value, than is the case with nonstem tomatoes.
This reacts adversely on the Galeosotes cloaca.

11/49753

USSR/Medicine - Plants, Diseases (Contd) Jul 48
hence the stem plant is relatively immune to virus
disease. Submitted 3 May 48.

11/49753

SUKHOV, K. S., and VOVK, A. M. "Relation of Hereditary Reaction of Nicotiana Species to Tobacco Mosaic Virus and to Temperature," Trudy Instituta Genetiki, no. 17, 1950, pp. 232-235. 442.9 P44

SO; Sire Si-90-53 15 Dec. 1953

VOVK, A. M.

SUKHOV, K. S., and VOVK, A. M. "Differences Between Northern and Southern Big Bud of Potatoes," Tudy Instituta Genetiki, no. 17, 1950, pp. 236-238 142.9 P44.

SO: Sira S1-90-53 15 Dec. 1953

СОРКОВ, К. С., and VOVK, A.M.

"Variability in the Tobacco Mosaic Virus Upon Passage Through the Organism of Plants of Various Species," Trudy Inst Genetiki Ak Nauk SSSR, 1950, No 18

Mikrobiologiya, Vol. XX, No. 5, 1951. ~~W~~-24635.

SUKHOV, K. S.; VOVK, A. M.; MUSHNIKOVA, K. S.

Tomatoes - Diseases and Pests

Effective test for DDT dust in controlling the tomato stalk borer. Dokl. Ak.
sel'khoz. 17 no. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

1. SUKHOV, K. S.; VOVK, A. M.
2. USSR 600
4. Potatoes
7. Reestablishing the morphology of tuber sprouts in the progeny of potato plants infected with "stołbur", Trudy Inst. gen, No. 19, 1952.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

SUKHOV, K.S.; VOVI, A.M.

New form of "needle-shaped" strain of tobacco mosaic virus found
under experimental conditions. Trudy Inst.gen. no.20:265-269 '53.
(MLHA 7:1)

(Mosaic disease)

VOVK, A.M.

~~Transmission of cucumber virus 2 through seeds. Trudy Inst.gen.~~
no.20:283-292 '53. (MLRA 7:1)
(Mosaic disease) (Vine crops--Diseases and pests)

Vovk, A. M.
USSR/ Biology - Microbiology

Card 1/1 Pub. 22 - 49/53

Authors : Vovk, A. M., and Wikiforova, G. S.

Title : Study of plant virus with an electron microscope

Periodical : Dok. AN SSSR 102/4, 839-849, Jun 1, 1955

Abstract : The elementary particles of a certain plant virus (Stolbur virus) which was causing great damage among tomatoes, potatoes, tobacco, eggplant, etc.
.....
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Institution :

Presented by: Academician A. L. Kursanov, February 11, 1955

USSR/Virology. Plant Viruses.

Abs Jour: Ref Zhur-Biol., No 14, 1958, 62083.

Author : Vovk. A.M.

Inst

Title : The Cucumber Virus 1, Its Method of Spreading
in Nature and Measures for Combatting It.

Orig Pub: Tr. In-ta genet. AN SSSR, 1956, No 23, 296-310.

Abstract: The virus of the mosaic sickness of the cucumber, propagated under field conditions on cucurbitaceous and other cultures, retains its infectiousness after filtering the juice through a Seitz filter and F3 and F4 candles. Particles detected with the electron scope were spherical in form and had a diam. of 35 mu. A similarity has been demonstrated between the cucumber mosaic and the disease

Card : 1/2

USSR/Virology. Plant Viruses.

Abs Jour: Ref Zhur-Biol., No 14, 1958, 62083.

produced by the cucumber virus 1, described in foreign literature. The virus is not transmitted through the soil or through the seeds, does not survive long in dry plant fragments and in carrier-insects. Reservoirs of the virus - perennial species of wild and cultivated plants. From the foci of infection on cultivated Cucurbitaceae the virus spreads through the aphids - *Aphis gossypii*, *Myzus persicae*, and *Macrosiphum gel.* For combatting infections the destruction of perennial weeds, the carriers of the virus, is recommended and investigation of varieties resistant to the virus. -- G. M. Razvyazkina.

Card : 2/2

USSR/Virology - Viruses of Plants.

E

Abs Jour : Ref Zhur Biol., No 6, 1959, 23795

Author : Voyk, A.M.

Inst :

Title : Temperature Conditions of the Origination of Epiphytes of the Virus of Tomato Mosaic and Streak

Orig Pub : Zh. obshch. biol., 1958, 19, No 2, 139-147

Abstract : As a result of investigations conducted in 1953-1957 in production and Institute hothouses, the author arrives at the conclusion that, as a rule, it is not possible to grow healthy tomato plants, despite the fact that virus introduction from the outside was excluded in these experiments. The author feels that in development of plants under the conditions of sharp fluctuations of increased and lowered temperatures, the virus of tobacco mosaic originates endogenically in the cells of the plant, which later spreads as an infectional origin. -- M.I. Gol'din

Card 1/1

VOVI, A.M.

Filterability of the onion mosaic virus. Trudy. Inst.
gen. no. 27:372-375 '60. (MIRA 13:12)
(Onion mosaic virus)

VOVK, A.M.

Origin and nature of viruses. Trudy Inst. gen. no. 28:244-268 '61.
(MIRA 14:11)
(VIRUSES)

VOVK, A.M.

Inactivation of the tobacco mosaic virus in tomato seeds during
storage of various length. Trudy Inst. gen. no.28:269-276 '61.
(MIRA 14:11)

(TOBACCO MOSAIC VIRUS) (SEEDS)

VOVK, A.M.; ANDRONOVA, A.V.

Testing the root-knot eelworm as a possible transmitter of the
cucumber mosaic virus 2. Trudy Inst. gen. no. 18:277-282 '61.
(MIRA 14:11)

(CUCUMBER MOSAIC VIRUS)
(NEMATODES AS CARRIERS OF DISEASE)

VOVK, A.M.; NIKIFOROVA, G.S.

Cucumber necrosis virus in the electron microscope. Dokl. AN SSSR
137 no.2:462-463 Mr '61. (MIRA 14:2)

1. Institut genetiki AN SSSR. Predstavleno akademikom A.I.Oparinyu.
(CUCUMBERS --DISEASES AND PESTS)
(VIRUS DISEASES OF PLANTS).....

VOVK, A.M.; ANDRCHNOVA, A.V.

Conditions of the appearance of cucumber mosaic virus 2 and
measures for its control. Trudy Inst.gen. no.35:94-109 '65.
(MIFA 18:12)

TREFILOV, A.A.; IVANOV, D.P., veterinarnyy vrach; KRUGLIKOV, B.P.; VOVK, A.M.,
mladshiy nauchnyy sotrudnik; VEGLINA, M.P., veterin.vrach; BULATOV, Ya.P.

Veterinary preparations and equipment. Veterinariia 41 no.3:94-104
Mr '64. (MIRA 18:1)

1. Nachal'nik otdela zooveterinarnykh tovarov Soyuznogo tresta po
snabzheniyu sel'skogo khozyaystva veterinarno-zootekhnicheskim
oborudovaniyem, instrumentariyem i medikamentami (for Trefilov).
2. Ministerstvo sel'skogo khozyaystva Belorusskoy SSR (for Ivanov).
2. Zaveduyushchiy khimicheskim otdelom Ivanovskoy oblastnoy veterinar-
noy laboratoriyey (for Bulatov). 4. Zaveduyushchiy radiologicheskim
otdelom Ivanovskoy oblastnoy veterinarnoy laboratoriyey (for Kruglikov).
5. Ukrainskiy nauchno-issledovatel'skiy institut eksperimental'noy
veterinariii (for Vovk).

VOVK, A.M.; ANDRONOVA, A.V.

Role of soils in the distribution of the tobacco mosaic virus.
Trudy Inst. gen. no.29:389-403 '62. (MIRA 16:7)

(Tobacco mosaic virus)

VOVK, A.M.; ANDRONOVA, A.V.

Testing the root knot nematode as a possible carrier of the
tobacco mosaic virus. Trudy Inst. gen. no.29:411-414 '62.
(MIRA 16:7)

(Tobacco mosaic virus) (Nematoda)

VOVK, A.M.

Cucumber virus 1, its propagation paths in nature and measures for
controlling it. Trudy Inst.gen.no.23:296-310 '56. (MLEA 10:1)
(Diseases of plants) (Cucumbers--Diseases and pests)
(Mosaic disease)

VOVK, A.M.

~~Properties of the onion mosaic virus. Trudy Inst.gen.no.23:311-~~
316 '56. (MLBA 10:1)
(Onions--Diseases and pests) (Mosaic disease)

VOVK, A.O., kand.istor.nauk; SPITSKIY, V.Ye. [Spyts'kyl', V.IE.], kand.istor.nauk

Page from heroic past ("National movements on the left bank and in eastern Ukraine from 1750 to 1780" by K.I.Stetsiuk. Reviewed by A.O.Vovk, V.IE.Spyts'kyl'). Nauka i zhyttia 10 no.12:60-61 D '60. (MIRA 14:4)

(Ukraine--Peasant uprisings) (Stetsiuk, K.I.)

46-4 -1-4/23

AUTHORS: Vovk, A. Ye., Pasternak, R. N., Tyutekin, V. V.

TITLE: Experimental Investigation of Wave Motion in a Medium with Cylindrical Channels. (Eksperimental'noye issledovaniye volnovykh svoystv sredy s tsilindricheskimi kanalami.)

PERIODICAL: Akusticheskiy Zhurnal, 1958, Vol.IV, Nr.1, pp.24-32. (USSR)

ABSTRACT: An approximate calculation of acoustic properties of a medium with cylindrical channels (cavities) was carried out by G.D. Malyuzhintsev. V.V. Tyutekin (Ref.1) dealt with the problem of propagation of elastic waves in such a medium. For the special case of a rubberlike material an expression was obtained for the complex wave-number corresponding to waves propagated parallel to the channel axes when the channel radius was small compared with the shear wavelength (the "static" case). A dynamical correction, similar to the Rayleigh correction, for the case of propagation of axially symmetric elastic waves in a solid rod was found. In the present paper the authors show how to calculate the complex

Card 1/4 wave-number from the measured value of the complex

46-4-1-4/23
Experimental Investigation of Wave Motion in a Medium with
Cylindrical Channels.

impedance of a medium with cylindrical channels. This calculation is followed by the description of an experimental verification of the theory given in Ref.1 and an analysis of experimental determination of acoustic properties of the medium in the case when the channel radius is comparable with the shear wavelength, since the latter case could not be dealt with theoretically because of its complexity. The experimental studies were carried out using the "pulse" tube apparatus (Ref.5,6). Rubber cylinders with cylindrical cavities parallel to their axes were used as samples in this study. In order to satisfy the theoretical conditions given in Ref.1 the number of channels had to be equal to 7, 19, 37 etc. (see Fig.1). A further theoretical condition of radial fixing of the external surfaces of samples was complied with by complete immersion in the pulse tube and attachment to the latter by means of a wire. Figs. 3 and 4 show experimental values (crosses, dots and triangles) of quantities P and Q which occur in the expression for the complex

Card 2/4

46-4-1-4/23

Experimental Investigation of Wave Motion in a Medium with
Cylindrical Channels.

impedance of the sample Z_0 (Eq.3'). Theoretical values of P and Q calculated from the elastic constants of rubber, are given as continuous curves in Figs.3 and 4. The agreement between experiment and theory is considered to be satisfactory. Fig.6 shows non-dimensional compressibility of a channel in the rubber sample for various values of the quantity ϵ . This quantity is given by $\epsilon = a/b$, where a = channel radius and b = radius of a tube equivalent in size to the hexagonal prism surrounding the channel as shown in Fig.1. Fig.7 shows the results of measurement of the complex shear modulus of rubber with cylindrical channels. This figure shows also (crosses) the results from Ref.8 which were obtained using a long acoustic line. Good agreement between the results obtained by the present authors and those of Ref.8 can be seen in Fig.7. There are 7 figures, 1 table and 8 references, 5 of which are Soviet, 2 American and 1 German.

Card 3/4

Experimental Investigation of Wave Motion in a Medium with
Cylindrical Channels. 46-4-1-4/23

ASSOCIATION: Acoustics Institute, Academy of Sciences of the
USSR, Moscow (Akusticheskiy institut. AN SSSR,
Moskva)

SUBMITTED: February 20, 1957.

1. Cylindrical shells—Acoustic properties—Theory

Card 4/4

VOVK, A.Ya.; TYUTEKIN, V.V.

"Superviscous" longitudinal waves in elastic media. Akust. zhur. 7
no.2:256-257 '61. (MIRA 14:7)

1. Akusticheskiy institut AN SSSR, Moskva.
(Sound waves) (Elastic solids)

VOVK, B. (selo Trebukhiv, Brovars'kogo rayonu, Kiivs'koi oblasti).

Living history. Znan. ta pratsia no.4:18-19 Ap '59.

(MIRA 12:10)
(Brovary District--Communist Youth League)

VCVK, E.

From young engineers to their homeland. Znan. ta pratsia
no.12:18-19 D '61. (MIRA 14:11)
(Engineering models)

VOVK, D.N., slesar'.

Steel outlet pipes for cleaning machines. Stroi. truboprov. 8
no.9:25 S '63. (MIRA 16:11)

1. Remontnaya baza Stroitel'nogo upravleniya No.7 tresta.
Ukrgazneftestroy, L'vov.

1. VOVK, F.
2. USSR (600)
4. Machine-Tractor Stations
7. In the struggle to carry out the plan, MTS, 13, no. 5, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

VOVK, F. I.

Vovk, F. I. "The omul' -- *Coregonus autumnalis* (Pallas) -- of Yenisey Bay," Trudy Barabin. otd-niya Vsesoyuz. nauch.-issled. in-ta ozernogo i rechn. ryb. khoz-va, Vol. III, 1949, p. 43-90
-- Bibliog: 19 items

SO: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 14, 1949).

L 28382-66 EWP(c)/EWP(k)/EWT(d)/EWT(m)/EWP(h)/ETC(m)-6/T/EWP(l)/EWP(v)/EWP(t)/ETI
 ACC NR: AP5023387 (A) SOURCE CODE: UR/0317/65/000/005/0062/0066
 IJP(c) DJ/JD
 AUTHOR: Vovk, F. (Major general of engineering-technical service);
 Gayenko, A. (Engineer, Lieutenant Colonel); Gutman, M. (Engineer, Lieu-
 tenant Colonel); Gershteyn, S. (Engineer, Lieutenant Colonel)
 ORG: None
 TITLE: Prolongation of machine life
 SOURCE: Tekhnika i vooruzheniye, no. 5, 1965, 62-66
 TOPIC TAGS: ordnance engineering, military tank, internal combustion engine
 ABSTRACT: The present paper, consisting of three separate articles, deals with the operation, maintenance and repair of armored tanks, engines and auxiliary equipment. The authors of the first article, F. Vovk and A. Gayenko, do not recommend overhauling new engines of the B-2 type until a general overhauling of the entire tank is required. However, meticulous checking of engine parts between general overhauls is strongly recommended. In connection with this subject, an example of the monthly discussions at the Ul'yanov Guard Armored Tank School was mentioned. Reducing-gear bearings of heavy tanks are to be checked after a run of 200 to 300 km. The level of liquid in the engine cooling system must be checked every 2 or 3 hours. A regular replacement of track

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ACC NR: AP5023387

4

chain pins can increase the run distance by 600 to 800 km. The caterpillars service life can be twice as long if they are kept well adjusted and maintained. A set of gages for caterpillars was proposed by Officer Lopatin. This set was shown in a figure, as well as a device for changing pins. In conclusion, further development of special commissions for inspection of tanks was strongly recommended. The second article, by M. Gutman, deals with the repair of engines and their parts at an automobile-repair plant. Mechanical cleaning of oil pipes and channels, use of diamond drills for honing, careful cleaning of parts (including ultrasonic method) and other improvements were recommended. Filters, oil radiators and fuel equipment were cleaned by using the UZG-10M device. Mass production methods were introduced for cleaning and polishing operations. A special automatic device was invented for honing operations of YaAZ engines. The advantages of diamond honing were stressed. The machining of crankshafts was organized in cooperation with the Khar'kov Automobile-Road Institute. Following the experience of the Khar'kov and Yaroslavl' engine plants, the tightening of bolts were checked by dynamometric wrenches. A table was presented showing the wrench types and tightening forces to be applied to different engine parts. The third article, by S. Gershteyn, contains some critical observations on various suggestions such as: keeping the heating system connected in summer or muffling the engine if the temperature of cooling liquid is 80 C. Ex-

Card 2/3

L 28382-66

ACC NR: AP5023387

cessive inspection and duplication in control checking was also criticized. The successful maintenance and repair practice of Omsk Armored Tank Technical School was mentioned. Orig. art. has: 2 figures and 1 table.

SUB CODE: 19 / SUBM DATE: None / ORIG REF: 000 / OTH REF: 000

Card 3/3 *cc*

~~VOYE, I. I.~~

Method of reconstructing the growth of fishes based on scale
study. Trudy Biol.sta."Borok" no.2:351-392 '55.(MIRA 9:6)
(Scales (Fishes))

VOVK, P.I.; MOISEYEV, M.I.

Rate of growth of the young-of-the-year pike perch and bream in
Rybinsk Reservoir. Trudy Biol. sta. "Borok" no.3:321-340 '58.
(MIRA 11:9)

(Rybinsk Reservoir--Perch) (Rybinsk Reservoir--Bream)

VOVK, G. M.

ANDON'YEV, V.L.; BAUM, V.A.; BAUMGARTEN, N.K.; BERKIN, V.D.; BIRYUKOV, I.K.;
BIRYUKOV, S.M.; BLOKHIN, S.I.; BOROVY, G.A.; BULIV, M.Z.; BURAKOV,
H.A.; VERTSAYZER, B.A.; VOVK, G.M.; VORMAN, B.A.; VOSHCHININ, A.P.;
GALAKTIONOV, V.D., kand. tekhn. nauk; GEMKIN, Ye.M.; GIL'DENBLAT,
Ya.D., kand. tekhn. nauk; GINZBURG, M.M.; GLEBOV, P.S.; GODES, E.G.;
GORBACHEV, V.N.; GRZHIB, B.V.; GHEKULOV, L.F., kand. s.-kh. nauk;
GRODZHENSKAYA, I.Ya.; DANILOV, A.G.; DMITRIYEV, I.O.; DMITRIYENKO,
Yu.D.; DOBROKHOTOV, D.D.; DUBININ, L.G.; DUNDUKOV, M.D.; ZHOLIK,
A.P.; ZENKEVICH, D.K.; ZIMAREV, Ye.V.; ZIMASKOV, S.V.; ZUBRIK, K.M.;
KARANOV, I.F.; KNYAZEV, S.N.; KOLEDAYEV, N.M.; KOMAREVSKIY, V.T.;
KOSHENKO, V.P.; KOSHENISTOV, D.V.; KOSTROV, I.N.; KOTLYARSKIY, D.M.;
KRIVSKIY, M.N.; KUZNETSOV, A.Ya.; LAGAR'KOV, N.I.; LIGALOV, V.G.;
LIKHACHEV, V.P.; LOGUNOV, P.I.; MATSKEVICH, K.F.; MEL'NICHENKO,
K.I.; MENDELEVICH, I.R.; MIKHAYLOV, A.V., kand. tekhn. nauk;
MUSIYEVA, R.N.; NATANSON, A.V.; NIKITIN, M.V.; OVES, I.S.;
OGUL'NIK, G.R.; OSIPOV, A.D.; OSMER, N.A.; PETROV, V.I.; PERYSKHIN,
G.A., prof.; P'YANKOVA, Ye.V.; RAPOPORT, Ya.D.; REMEZOV, N.P.;
ROZANOV, M.P., kand. biol. nauk; ROCHEGOV, A.G.; RUBINCHIK, A.M.;
RYBCHEVSKIY, V.S.; SADCHIKOV, A.V.; SEMENTSOV, V.A.; SIDENKO, P.M.;
SINYAVSKAYA, V.T.; SITAROVA, M.N.; SOSNOVIKOV, K.S.; STAVITSKIY,
Ye.A.; STOLYAROV, B.P. [deceased]; SUDZILOVSKIY, A.O.; SYRISOVA,
Ye.D., kand. tekhn. nauk; FILIPPSKIY, V.P.; KHALTURIN, A.D.;
TSISHEVSKIY, P.M.; CHERKASOV, M.I.; CHERNYSHEV, A.A.; CHUSOVITIN,
N.A.; SHESTOPAL, A.O.; SHEKHTER, P.A.; SHISHKO, G.A.; SHCHERBINA,
I.N.; ENGEL', F.F.; YAKOBSON, A.G.; YAKUBOV, P.A., ARKHANGEL'SKIY,
(Continued on next card)

ANDON'YEV, V.L.... (continued) Card 2.

Ye.A., retsenzent, red.; AKHUTIN, A.N., retsenzent, red.; BALASHOV, Yu.S., retsenzent, red.; BARABANOV, V.A., retsenzent, red.; BATUMER, P.D., retsenzent, red.; BORODIN, P.V., kand. tekhn. nauk, retsenzent, red.; VALUTSKIY, I.I., kand. tekhn. nauk, retsenzent, red.; GRIGOR'YEV, V.M., kand. tekhn. nauk, retsenzent, red.; GUBIN, M.F., retsenzent, red.; GUDAYEV, I.N., retsenzent, red.; YERMOLOV, A.I., kand. tekhn. nauk, retsenzent, red.; KAJAULOV, B.F., retsenzent, red.; KRITSKIY, S.N., doktor tekhn. nauk, retsenzent, red.; LIKIN, V.V., retsenzent, red.; LUKIN, V.V., retsenzent, red.; LUSKIN, Z.D., retsenzent, red.; MATRIROSOV, A.Kh., retsenzent, red.; MENDELEYEV, D.N., retsenzent, red.; MENKEL', M.F., doktor tekhn. nauk, retsenzent, red.; OBERZKOV, S.S., retsenzent, red.; PPTRASHEN', P.N., retsenzent, red.; POLYAKOV, L.M., retsenzent, red.; RUMYANTSEV, A.M., retsenzent, red.; RYABCHIKOV, Ye.I., retsenzent, red.; STASENKOV, N.G., retsenzent, red.; TAKANAYEV, P.F., retsenzent, red.; TARANOVSKIY, S.V., prof., doktor tekhn. nauk, retsenzent, red.; TIZDEL', R.R., retsenzent, red.; FEDOROV, Ye.M., retsenzent, red.; SHEVYAKOV, M.N., retsenzent, red.; SHMAKOV, M.I., retsenzent, red.; ZHUK, S.Ya. [deceased], akademik, glavnyy red.; RUSSO, G.A., kand. tekhn. nauk, red.; FILIMONOV, N.A., red.; VOLKOV, L.N., red.; GRISHIN, M.M., red.; ZHURIN, V.D., prof., doktor tekhn. nauk, red.; KOSTROV, I.N., red.; LIKHACHEV, V.P., red.; MEDVEDEV, V.M., kand. tekhn. nauk, red.; MIKHAYLOV, A.V., kand. tekhn. nauk, red.; PETROV, G.D., red.; RAZIN, N.V., red.; SOBOLEV, V.P., red.; FERINGIER, B.P., red.; FREYGOFER, (Continued on next card)

ANDON'YEV, V.L.... (continued) Card 3.

Ye.F., red.; TSYPLAKOV, V.D. [deceased], red.; KORABLINOV, P.N.,
tekh. red.; GEMKIN, Ye.M., tekh. red.; KACHEROVSKIY, N.V., tekh.
red.

[Volga-Don; technical account of the construction of the V.I. Lenin
Volga-Don Navigation Canal, the TSimlyansk Hydroelectric Center,
and irrigation systems] Volgo-Don; tekhnicheskii otchet o stroitel'-
stve Volgo-Donskogo sudokhodnogo karala imeni V.I. Lenina, TSim-
lianskogo gidrouzla i orositel'nykh sooruzhenii, 1949-1952; v plati
tomakh. Moskva, Gos. energ. izd-vo. Vol.1. [General structural
descriptions] Obshchee opisanie sooruzhenii. Glav. red. S.IA. Zhuk.
Red. toma M.M. Grishin. 1957. 319 p. Vol.2. [Organization of con-
struction. Specialized operations in hydraulic engineering] Orga-
nizatsiia stroitel'stva. Spetsial'nye gidrotekhnicheskie raboty.

(Continued on next card)

ANDON'YEV, V.L.... (continued) Card 4.

Glav. red. S. Ia. Zhuk. Red. toma I., N. Kostrov. 1958. 319 p.

(MIRA 11:9)

1. Russia (1923- . U.S.S.R.) Ministerstvo elektrostantsii. Byuro tekhnicheskogo otcheta o stroitel'stve Volgo-Dona. 2. Chlen-korrespondent Akademii nauk SSSR (for Akhutin). 3. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Grishin, Razin).

(Volga Don Canal--Hydraulic engineering)

ACC NR: AT7000713 (A)

SOURCE CODE: UR/0000/66/000/000/0076/0082

AUTHOR: Sivchenko, N. A. (Engineer); Vovk, G. P. (Candidate of technical sciences)

ORG: none

TITLE: Investigation of the cavitation and the breakaway of oil from pump pistons

SOURCE: Ukraine. Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya. Gidroprivod i gidropnevmoavtomatika (Hydraulic drive and hydropneumatic automation), no. 2. Kiev, Izd-vo Tekhnika, 1966, 76-82.

TOPIC TAGS: cavitation, hydraulic pump, engine oil pump, fuel oil, engine piston, lubricating oil

ABSTRACT: The source and character of cavitation and the breakaway of oil from the piston of an NP-25 pump has been investigated using type 20 and AMG-10 industrial oils (of a regular type, and free of dissolved air) at temperatures between 20-100C and at 2600-5000 rpm. It was found that with low resistance in the throttle valve, the oil in the suction main did not contain air bubbles, which began to appear with a certain drop in oil pressure. The number and size of bubbles increase with increased throttle-valve resistance. A sudden decrease in the pump's discharge was a result of the breakaway of oil from the piston;

Card 1/2

ACC NR: AT7000713

oils of a low viscosity showed more air bubbles. Curves show the effects of the pump's discharge and of the oil breakaway on the pressure at various rpm and on the appearance of bubbles, making it possible to determine the required minimum oil pressure for normal operating conditions. Orig. art. has: 5 figures.

SUB CODE: 13,21,20//SUBM DATE: 29Jun66/ ORIG REF: 002

Card 2/2.

SIVCHENKO, N.A., inzh.; VOVK, G.P., kand. tekhn. nauk

Cavitation in pumps of hydraulic systems. Gidr. mash. i gidr.
no.1:120-129 '65. (MIRA 18:12)

1. Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti.

VOVK, G.P. [Vovk, H.P.], kand. tekhn. nauk; SIVCHENKO, N.A. [Syvchenko, N.A.]

Characteristics of the operation of the hydraulic drive of
machinery for the light industry. Leh. prom. no.3:79-82 JI-S
'65. (MIRA 18:9)

L 1402-66. WB ^{EW} 11/EPA(s)-2/EWT(m)/EPF(c)/EPF(n)-2/T-2/EMP(t)/EMP(b)/ETC(m) JD/WW/
 ACCESSION NR: AT5022817 UR/3165/65/000/001/0120/0129

AUTHOR: Sivchenko, N. A. (Engineer); Vork, G. P. (Candidate of technical sciences)

TITLE: Cavitation in pumps of hydraulic systems 44, 55

SOURCE: Ukraine. Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya. Gidravlicheskiye mashiny i gidroprivod, no. 1, 1965. Issledovaniye gidravlicheskiykh ustroystv i sistem (Investigation of hydraulic devices and systems), 120-129 47 B+1

TOPIC TAGS: ¹⁶ cavitation, hydraulic system, fluid pump, piston pump

ABSTRACT: The problem of cavitation in hydraulic-system pumps, particularly the effect of dissolved or dispersed air or gases in the fluid, is discussed. It is shown that the cavitation may be avoided when the pump inlet pressure is:

$$p_{in} > \frac{Q^2(\alpha_2 - \alpha_1)}{P} + p_{at}$$

or

$$p_{at} \pm h\gamma - p_c - \frac{\alpha_1\gamma}{2g} - Q \frac{Q(\alpha_2 - \alpha_1)}{P} > p_{at}$$

where p_{in} is the inlet pressure; γ is the specific weight of the fluid; Q , true con-
 Card 1/5

L 1402-66

ACCESSION NR: AT5022817

sumption of the fluid; v_1 and v_2 , the fluid velocities at inlet and at the piston; F , the piston area; p_v , the saturated vapor pressure of the fluid; ρ , density of the fluid; h , the inlet head; p_l , the inlet losses; and p_a , the tank pressure. However, this and other previously published equations do not account for the dissolved air or gas in the fluid. To verify the theory, the cavitation problem was studied experimentally using a laboratory hydraulic-system model with a piston-type pump in which the cylinder was made of a transparent material. The experiments were carried out at 16—70C, with a piston displacement velocity of 0.7—2 m/min, and at various pressures. At a certain inlet pressure, an air-bubble cloud was observed at the suction. The cloud formation was due to the liberation of dissolved air, resulting in a so called "pseudocavitation." The pressure at which this cavitation starts depends on the temperature and the fluid used, e.g., at 100C, for the AMG-10 and the "industrial 20" oils, it is equal to 13 and 3 mm Hg, respectively. The minimum time needed to initiate the cavitation was 0.01 sec. Additional experiments were conducted to determine the effect of the dissolved gas on the separation of the fluid from the piston surface when a vacuum is created by closing the supply line. It is shown that at a given temperature, the pressure at which the fluid separation occurs considerably exceeds the saturated vapor pressure of the fluid at the given temperature, e.g., at 50C the pressure was 43—50 mm Hg. Orig. art. has: 6 figures. (PS)

Card 2/2

L 11:02-66
ACCESSION NR: AT5022817

ASSOCIATION: none

SUBMITTED: 00

NO REF BOV: 009

ENCL: 00

OTHER: 001

SUB CODE: PRME

ATD PRESS: 4099

Card 3/3

SAYDAKOVSKIY, Yu.Ya.; VOVK, G.P.

Effect of potentiated anesthesia on the blood coagulation system.
Probl. gemat. i perel. krovi 9 no.8:21-23 Ag '64. (MIRA 18:3)

1. 2-ye khirurgicheskoye otdeleniye L'vovskoy oblastnoy klinicheskoy
bol'nitsy (glavnyy vrach N.I. Besedin) i klinika fakul'te'skoy khi-
rurgii (zav. - prof. G.G. Karavanov, lechebnogo fakul'teta L'vovskogo
meditsinskogo instituta.

VOVK, I.; POPOV, V., nauchnyy sotrudnik

Manufacture and erection of series 1-480-1g buildings. Bud.mat.
i konstr. 4 no.6:16-20 N-D '62. (MIRA 15:12)

1. Zamestitel' direktora Krasnoarmeyskogo kombinata krupnpanel'nogo
domostroyeniya (for Vovk). 2. Donetskii nauchno-issledovatel'skiy
institut (for Popov).

(Precast concrete construction)
(Krasnoarmeyskiy (Donetsk Province)—Apartment houses)

YOVK, I.F.; TESTEMITSANU, P.A.

Tonsillectomy in arthropathic psoriasis. Zdravookhraneniye
6 no.1:57-58 J-F '63. (MIRA 16:8)

1. Iz kliniki kozhnykh i venericheskikh bolezney (zav. kafedroy-dotsent L.G. Bogacheva) Kishinevskogo meditsinskogo instituta.

VOVK, I.F.

Extract of clary sage (Salvia sclarea) in treating psoriasis.
Zdravookhranenie 4 no.4:47-50 J1-Ag '61. (MIRA 14:11)

1. Iz kliniki kozhnykh i venericheskikh bolezney (zav.- dotsent
L.G.Bogacheva) Kishinevskogo meditsinskogo instituta.
(PSORIASIS) (SAGE-THERAPEUTIC USE)

VOVK, I.N.; MURZIN, V.V.

Deep drilling of automobile valves made of heat resistant steel.
Avt.prom. 27 no.6:40-41 Je '61. (MIRA 14:6)

1. Chelyabinskiy nauchno-issledovatel'skiy institut tekhnologii
mashinostroyeniya (NIITEKhMASH).

(Automobiles--Engines--Valves)

(Drilling and boring machinery)

VOVK, I.N.; PAVLIV, B.A.

Conversion of mono- and diphosphohexoses by hemolysates of erythrocytes
in cattle and swine. Ukr. biokhim. zhur. 37 no.3:331-344 '65.
(MIRA 18:7)

1. Kafedra biokhimii L'vovskogo zooveterinarnogo instituta.

KHITAROV, D.N.; VOVK, I.P.

Improved conductometric method for the determination of carbonic
acid microquantities in gas-liquid inclusions of minerals.
Trudy IMGRE no.18:142-146 '63. (MIRA 16:12)